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# COMPARISON OF US AND SOVIET POPULATION AND MANPOWER



November 1960

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# COMPARISON OF US AND SOVIET POPULATION AND MANPOWER

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#### FOREWORD

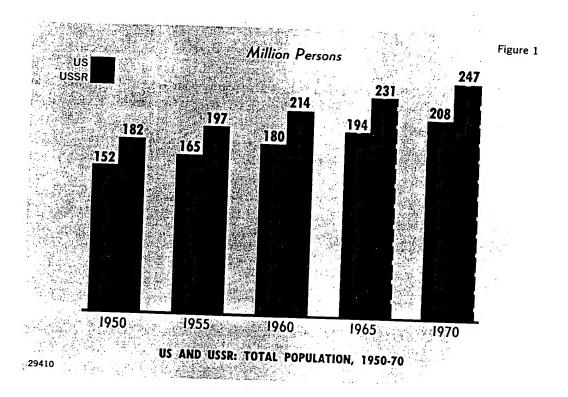
This report presents summary data on population and manpower in the US and in the USSR and indicates some of the developments anticipated during the next decade. The economic significance of these developments has already been discussed in the following recent publications: Manpower: Challenge of the 1960s (Department of Labor), 1960, and Soviet Manpower: 1960-70 (Central Intelligence Agency), May 1960.

Population changes in the US during the next decade are expected to result in an accelerated growth of the labor force, of high school enrollment, and of college enrollment. Growth in these areas, which had been slowed during the 1950's by the low birthrates of the 1930's, will increase sharply under the impact of the rising birthrates experienced during and after World War II. In the USSR, in contrast, birthrates showed little change during the 1930's, declined sharply during World War II, and began a gradual rise in the late 1940's. The low World War II birthrates are now being reflected in a decline in the population of high school age and a slowdown in the growth rate of the labor force. During the 1960's the growth rate of the labor force will be accelerated, the population of high school age will reverse its current downward trend about 1962 and rise rapidly thereafter, and the population of college age will be much smaller during the 1960's than during the 1950's.

Sources for the Soviet data are listed in the appendix. Population projections for the USSR assume constant fertility rates and slowly declining death rates, and the labor-force projections assume fulfillment of the goals for manpower and school enrollment set in the Soviet Seven Year Plan (1959-65) and a continuation to 1970 of the trends established in the first half of the decade.

Sources for the US data are listed in the appendix. In addition to these published sources, some unpublished estimates were provided by the US Bureau of Labor Statistics and the US Bureau of the Census. Population projections are those of the Bureau of the Census, and laborforce projections are those of the Bureau of Labor Statistics.

THE TOTAL POPULATIONS OF THE US AND THE USSR ARE EXPECTED TO INCREASE AT SIMILAR RATES DURING THE 1960's BUT MORE SLOWLY THAN DURING THE PAST DECADE



During the 1950's the population of the US increased at an average annual rate of about 1.7 percent and that of the USSR about 1.6 percent. These rates are expected to decline to about 1.5 percent in both countries during the 1960's. In 1970 the Soviet population will be one-fifth larger than that of the US, about the same relationship as in 1950 and 1960.

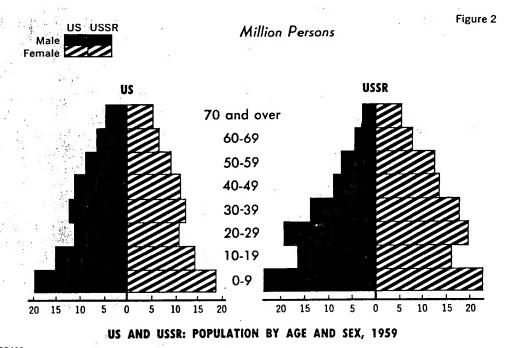
Fertility rates in the USSR apparently were fairly stable during the 1950's. Over the next decade the continuing urbanization, the legality of abortion, and the current policy of increasingly wider dissemination of information on birth control probably will have a depressing effect on fertility rates, but these effects will be offset by such factors as continuing government subsidies to mothers of large families and to unmarried mothers, better housing conditions, and an improving ratio of men to women in the marrying ages. Although fertility rates by age

among Soviet women are not expected to change significantly during the 1960's, population growth will slow down because of a decline in the number of women in the main child-bearing ages (20 through 34) -- a consequence of the small number of children born during World War II who will be marrying and forming families during the 1960's.

Although fertility rates in the US have increased sharply since the early 1940's, many US demographers expect this trend to be reversed during the 1960's. They maintain that the postwar period has been one of transition in which girls married and had their children earlier than in the past. Birthrates have been rising, therefore, among women under 30 years of age but have remained fairly stable among women in their 30's and 40's, who were having their children under the previous, more delayed pattern of family formation. This period of transition is ending, and fertility rates among women in the child-bearing ages as a whole will therefore decline. The US Department of Labor has evaluated the probable consequences of these developments and has forecast a population of 208 million in 1970\* -- the same as the Series III projection of the US Bureau of the Census, which also assumes declining fertility rates during the 1960's.

<sup>\*</sup> All population estimates in this report are midyear figures.

### THERE ARE WIDE DIFFERENCES BETWEEN THE CURRENT AGE-SEX DISTRIBUTION OF THE POPULATION OF THE US AND THAT OF THE USSR

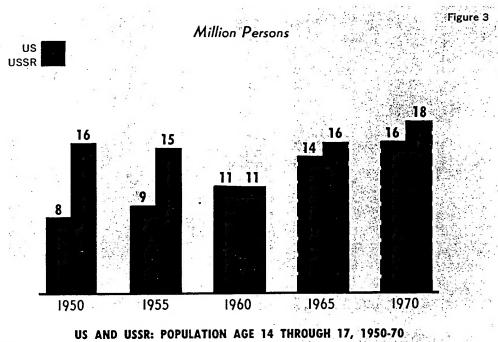


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The most outstanding difference between the US population and that of the USSR concerns the ratio of women to men among adults. In the US in 1959, there were 107 women to every 100 men in the age group 30 and older; in the same age group in the USSR, there were 158 women to every 100 men. In both countries the sex ratio was about even among younger persons. The relative shortage of adult men in the USSR reflects the cumulative effects of wars and internal strife during the past half century and is unmatched in any other country in the world. In 1959, there were actually more men over 40 in the US than in the USSR --30 million compared with 22.5 million -- in spite of the fact that the total population of the USSR was one-fifth larger than that of the US. The relative shortage of adult men in the USSR is reflected in a large surplus of unmarried women. Although the total number of married women was about the same in the US and the USSR in 1959, there were 40 million unmarried women 16 years of age and older in the USSR but only 19 million in the US.

The current age structures of the two populations also reflect graphically previous periods of sharp reductions in birthrates in both countries -- especially during the 1930's in the US and during the 1940's in the USSR. These periods are mirrored in the relatively small number of persons age 20 through 29 at the present time in the US and age 10 through 19 in the USSR.

## THE POPULATION OF HIGH SCHOOL AGE WILL INCREASE MUCH FASTER IN THE USSR THAN IN THE US DURING THE 1960's



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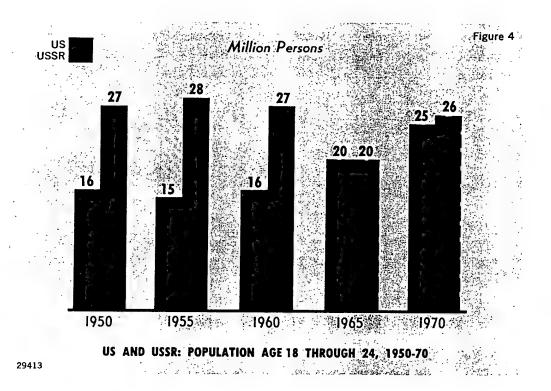
There are currently as many boys and girls of high school age (14 through 17)\* in the US as in the USSR, whereas 10 years ago there were only one-half as many. By 1970, however, the USSR will have 18 million in this age group, and the US will have 16 million.

In the US the growth of the population of high school age was accelerated during the latter part of the 1950's as the larger number of children born in the late 1930's replaced the smaller number born earlier in that decade. The rising birthrates experienced during the 1940's will result in an even faster growth rate in the early 1960's but in a somewhat slower rate in the late 1960's.

<sup>\*</sup> Although high schools in the USSR extend over 3 years, the 4-year age group is used here to facilitate comparison with the US in relative magnitudes as well as in trends.

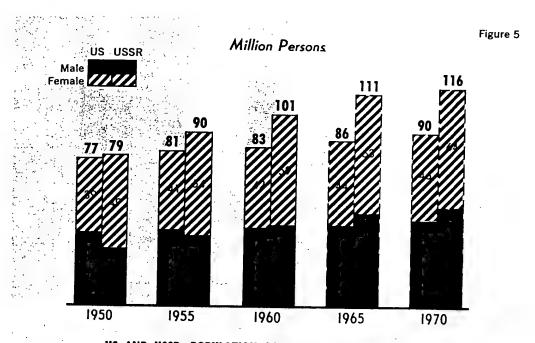
In the USSR the rapidly declining birthrates experienced during the early 1940's resulted in a decline in the population of high school age during the 1950's, a decline that is still underway. The size of this group will reach its lowest point -- about 10 million -- in 1961 and thereafter will increase rapidly during the remainder of the decade.

## THE POPULATION OF COLLEGE AGE WILL INCREASE RAPIDLY IN THE US BUT WILL DECLINE IN THE USSR DURING THE 1960's



The population age group from which college students are normally drawn (18 through 24) remained virtually unchanged during the 1950's in both the US and the USSR. Between 1960 and 1965, however, the population of college age will increase by nearly one-fourth in the US but will decline by one-fourth in the USSR. Between 1965 and 1970 this age group will increase in both countries at about the same rate, and both countries will have about 25 million persons of college age at the end of the decade.

THE POPULATION IN THE PRINCIPAL WORKING AGE GROUP WILL CONTINUE TO INCREASE MORE RAPIDLY IN THE USSR THAN IN THE US UNTIL THE LATTER HALF OF THE 1960's



US AND USSR: POPULATION AGE 25 THROUGH 64, 1950-70

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In 1950 the population age group from which experienced workers are primarily drawn (25 through 64) was not much larger in the USSR than in the US, but there were 10 million more women in this group in the USSR than in the US and 8 million fewer men. The population age 25 through 64 increased rapidly in the USSR during the 1950's, and the proportion of men increased from 38 to 42 percent, so that the USSR now has about 1 million more men and 17 million more women in this age group than does the US.

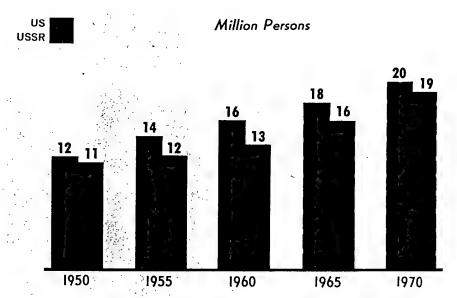
The very rapid increase in the number of men age 25 through 64 in the USSR resulted in part from the fact that the relatively small groups of males reaching 65 during the decade -- who were of military age during World War I and its aftermath -- were being replaced during the 1950's by the larger groups of males born between 1925 and 1935, most of whom were too young for military duty in World War II. In the US the

growth of this age group was slowed in the secondhalf of the decade because the groups reaching 25 were the relatively small ones born during the early 1930's.

The population age 25 through 64 will continue to increase more rapidly in the USSR than in the US during the first half of the 1960's, but thereafter the growth rate will be about the same in both countries. By 1970, men will make up 45 percent of this age group in the USSR compared with 49 percent in the US.

### IN 1970 THE POPULATION 65 AND OLDER WILL STILL BE LARGER IN THE US THAN IN THE USSR



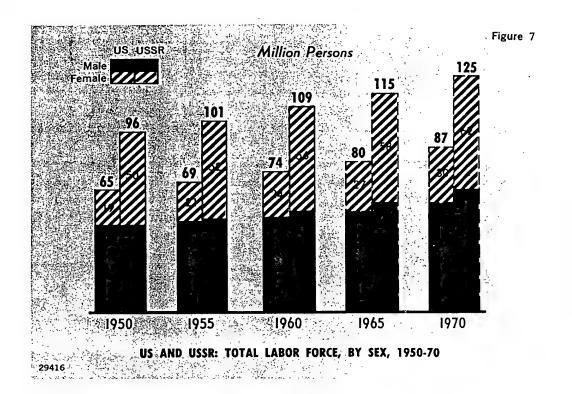


US AND USSR: POPULATION AGE 65 AND OLDER, 1950-70

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In spite of the fact that the USSR has a total population nearly one-fifth larger than that of the US, the USSR at present has far fewer persons 65 and older. During the 1960's, however, the population of this age group will increase much more rapidly in the USSR than in the US, although in 1970 this age group will still be a little larger in the US than in the USSR.

THE TOTAL LABOR FORCE WILL INCREASE MORE RAPIDLY IN THE US THAN IN THE USSR DURING THE 1960's



The Soviet labor force is now almost 50 percent larger than the US labor force, although the adult population (14 and older) in the USSR is only one-fifth larger than in the US. This difference is due to a much higher labor-force participation rate among women in the USSR, particularly in agriculture. In both countries, about 81 percent of all men 14 and older are in the labor force, but in the USSR 64 percent of the women in this age group work compared with 36 percent in the US.

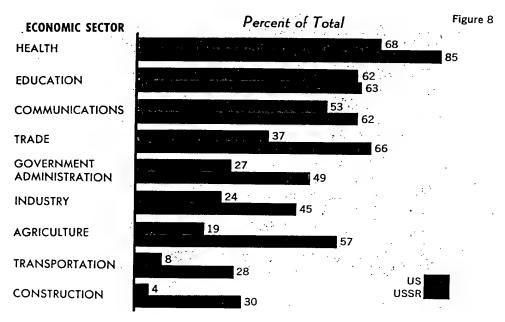
As noted earlier, the number of adult men in the USSR has been increasing more rapidly than the number of adult women and will continue to do so during the 1960's. The percent of Soviet women 14 and older who work has been fairly stable and is not expected to change significantly during the 1960's. Consequently, women will continue to constitute a smaller proportion of the total Soviet labor force. In 1950 and 1960, more than one-half of all Soviet workers were women. By 1970, unless

their rate of participation increases, they will represent less than one-half of the labor force for the first time since before World War II.

In the US, more and more women have been taking jobs during the past decade. At present, women make up 32 percent of the total labor force compared with 29 percent in 1950. The US Department of Labor expects a continuation of this trend and estimates that in 1970 women will constitute 34 percent of the US labor force.

The growth rate of the labor force was about the same in both countries during the 1950's. Over the next decade the US labor force will grow more rapidly than that of the USSR, not only because of a more rapid growth of the adult population (14 and older) in the US, but also because the USSR plans to route an increasing proportion of its youth into schools, thus delaying their entry into the labor force and reducing the growth of the labor force in relation to the growth of the adult population.

### WOMEN ARE EMPLOYED MUCH MORE EXTENSIVELY IN THE USSR THAN IN THE US

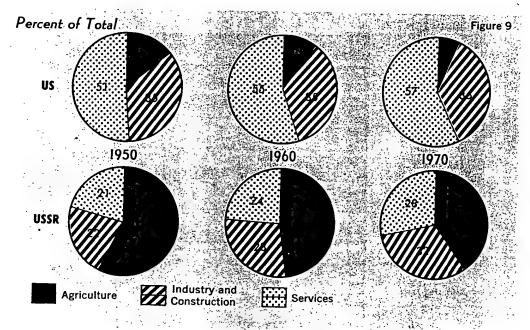


US AND USSR: WOMEN AS A PROPORTION OF TOTAL EMPLOYMENT
IN SELECTED ECONOMIC SECTORS, 1959

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Women now constitute more than one-half of the Soviet labor force but less than one-third of the US labor force, and women also make up a larger proportion of the labor force in the various sectors of the economy in the USSR than in the US. In both countries, women are employed more widely in such fields as health, education, communications, and trade than in the other branches of the economy and least widely in construction and transportation. Women constitute more than three-fifths of the total number of persons employed in education in both countries. In contrast, however, the number of women employed in construction in the USSR is more than seven times as great as in the US; in transportation, more than three times; in agriculture, three times; and in industry (including manufacturing, mining, and electric power), almost two times.

# NEARLY ONE-HALF OF THE SOVIET LABOR FORCE, BUT ONLY ONE-TENTH OF THE US LABOR FORCE, IS EMPLOYED IN AGRICULTURE



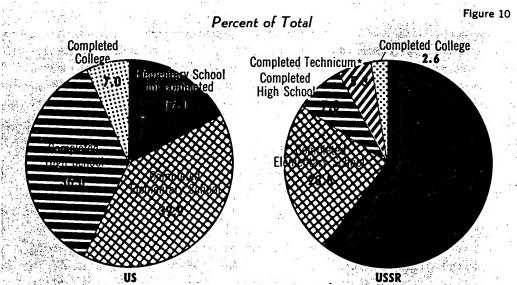
US AND USSR: EMPLOYMENT BY MAJOR ECONOMIC SECTOR, 1950-70

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More than 50 million people in the USSR -- nearly one-half of the total labor force -- are currently employed in agriculture. This proportion is expected to drop to about two-fifths by 1970. In contrast, only about one-tenth of the US labor force is employed in agriculture, and the proportion will be even smaller by 1970.

Both the US and the USSR currently employ between 9 million and 10 million people in the fields of education, health, and public administration. All the service fields taken together, however, account for only one-fourth of the Soviet labor force but more than one-half of the US labor force. This difference between the two countries results primarily from the larger number of persons employed in the US in trade; in repair and other personal services; and in financial, insurance, and real estate activities. During the 1960's the proportion of the labor force employed in services is expected to increase somewhat in both countries. The USSR also uses a smaller part of its labor force in industry and construction than does the US, 28 percent compared with 35 percent. This difference is expected to be less during the 1960's.

#### THE GENERAL LEVEL OF EDUCATION IS MUCH HIGHER IN THE US THAN IN THE USSR



\*The Technicum is a specialized secondary school that trains nurses, dentists, elementary school teachers, and various kinds of technicians. Graduates have completed 1 to 3 years of schooling beyond the high school level.

US AND USSR: EDUCATIONAL ATTAINMENT OF THE POPULATION (AGE 15 AND OLDER), 1959

In 1959, only about 40 percent of the Soviet population 15 and older had completed elementary school (7 years). For the US, with an 8-year elementary school system, the proportion was 83 percent. The percentage of the population with a completed college education was much higher in the US than in the USSR -- 7 percent compared with 2.6 percent. The proportion that had completed high school but not college also was much higher in the US -- 36 percent compared with the 13.1 percent who are graduates either of the general high schools or of the technicums in the USSR.

The USSR claims that illiteracy among its population age 9 through 49 has virtually been eliminated. According to the results of the 1959 census, 98.5 percent of the population in this age group can read and write. The literacy rate for this group was 89 percent in 1939 and 57 percent in 1926. Illiteracy among persons under 50 in the USSR, therefore, is currently about as uncommon as in the US. The extent of illiteracy

among persons 50 and older in the USSR has not been reported but probably is still relatively high. In the US the rate is currently about 4 percent.

In both the US and the USSR the average educational attainment of rural residents is much lower than that of urban residents. In the USSR in 1959, more than one-half of the population lived in rural areas, but only 25 percent of high school graduates, 30 percent of technicum graduates, and 16 percent of college graduates were to be found in such areas. Similarly, for the US in 1957, rural farm areas accounted for 12 percent of the population but for only 8 percent of all high school graduates and 4 percent of all college graduates.

Other published results of the 1959 Soviet census show that although women constitute a majority of high school and college graduates, Soviet men have acquired more education, on the average, than Soviet women. This is not the case in the US, where women are ahead of men in the general level of education. Thus, in the USSR, 43 percent of the men but only 36 percent of the women 15 and older had completed at least an elementary (7-year) education; 13.5 percent of the men and 12.8 percent of the women had completed high school or technicum but not college; and 3. 0 percent of the men and 2. 2 percent of the women had completed college. In the US in 1959, 85 percent of the women but only 81 percent of the men 15 and older had completed at least an elementary (8-year) education, and 32 percent of the men and 40 percent of the women had completed high school but not college. Nine percent of the US men compared with only 5 percent of the women had completed college. In terms of general level of education, US women had completed an average of 11.2 years compared with 10.7 years for men.

#### **APPENDIX**

#### I. Source References for Soviet Data

#### Figures 1 through 6

US Bureau of the Census, Foreign Manpower Research Office, unpublished estimates of the population of the USSR.

#### Figures 7 and 9

CIA. <u>Labor Supply and Employment in the USSR, 1950-65</u>, October 1960, pp. 10, 13, 20, 22.

CIA. <u>Soviet Manpower</u>, 1960-70, May 1960, pp. 3, 10.

#### Figure 8

USSR. Tsentral'noye Statisticheskoye Upravleniye pri Sovete Ministrov SSSR. Zhenshchina v SSSR (Women in the USSR), Moscow, 1960, pp. 35, 42. (Published data relating to 1958 extrapolated to 1959)
CIA. Labor Supply and Employment in the USSR, 1950-65, October 1960, p. 32.

#### Figure 10

USSR. Tsentral'noye Statisticheskoye Upravleniye pri Sovete Ministrov SSSR. Uroven' obrazovaniya, natsional'nyy sostav, vozrastnaya struktura i razmeshcheniye naseleniya SSSR porespublikam, krayam i oblastyam po dannym vsesoyuznoy perepisi naseleniya 1959 goda (Level of Education, Nationality Composition, Age Structure, and Distribution of the Population by Republic, Kray, and Oblast According to Data of the All-Union Census of Population of 1959), Moscow, 1960, p. 5. US Bureau of the Census, Foreign Manpower Research Office, unpublished estimates of the population of the USSR.

#### II. Source References for US Data

#### Figures 1, 3, 4, 5, and 6

Zitter, M., and Siegel, J.S. <u>Illustrative Projections of the Population of the United States</u>, by Age and Sex, 1960 to 1980, US Bureau of the Census, 10 November 1958, pp. 16-21.

#### Figure 2

Estimates of the Population of the United States by Age, Color, and Sex, July 1, 1957 to 1959, US Bureau of the Census, 26 January 1960, p. 9.

#### Figure 7

Population and Labor Force Projections for the United States, 1960 to 1975, US Bureau of Labor Statistics, Bulletin no. 1242, no date, pp. 23, 53.

#### Figure 8

Employment and Earnings, US Bureau of Labor Statistics, vol. 6, no. 11, May 1960, p. 72.

#### Figure 9

Manpower Needs and Resources of the United States, 1960-1975 (A study being prepared by the US Bureau of Labor Statistics)

#### Figure 10

Literacy and Educational Attainment: March 1959, US Bureau of the Census, 4 February 1960, p. 13.